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### **REMARKS**

This is in response to the Official Action dated May 17, 2005. Reconsideration and allowance of the present application are respectfully requested.

### **Claim Amendments**

Independent claims 1 and 11 have been amended to more particularly point out that the electrical power connector makes a permanent connection between electrical power conductors without providing a switch therebetween. Support for this amendment may be found throughout the specification and drawings, e.g. in FIG. 5, and page 6, line 18 to page 7, line 2.

### **35 U.S.C. §103 Rejection**

Claims 1, 3-15 and 20-23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the prior art disclosed by applicant as FIGS. 2 and 4 (Reference 1) in view of Inoue (US Patent Number 5,214,312, hereinafter "Inoue"). Applicant respectfully traverses this rejection.

Applicant notes that Reference 1 illustrates the particular problem solved by the claimed invention. In particular, the claimed configuration advantageously eliminates the need for power feed equipment 404 and 405 illustrated in FIG. 4 of Reference 1. This is confirmed in Applicant's specification on page 9, lines 18 - 21, with reference to the embodiment of FIG. 5 stating:

[T]he devices of two cable segments 505a and 505b may be powered by a single pair of power feed equipment 507a and 507b, providing significant savings in installing and operating the communication system using these cable segments.

Reference 1, therefore, cannot properly be said to have taught or suggested the claimed invention to one skilled in the art at the time the invention was made, without the use of hindsight.

Regarding independent claim 1, the Examiner acknowledges that Reference 1

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does not disclose an electrical power connector located on the first landmass and connecting said electrical power conductors of said first and second cables so that electrical current can flow between said first and second power feed equipment through said power conductors of said first and second cables, wherein no separate current source is coupled to said electrical power connector on said first landmass. *Page 3 of Official Action dated May 17, 2005 (emphasis added).*

With respect to independent claim 11, the Examiner acknowledges that Reference 1

does not disclose an electrical power connector located on said additional landmass and wherein no separate current source is coupled to said electrical power connector on said at least one additional landmass. *Pages 7-8 of Official Action dated May 17, 2005 (emphasis added).*

Applicants note that Reference 1 also does not disclose limitations of amended claim 1 requiring that the "electrical power connector permanently connects said electrical power conductors of said first and second cables without providing a switch between said electrical power conductors of said first and second cables" or limitations of amended claim 11 requiring "said at least one electrical power connector permanently connecting said electrical power conductors without providing a switch between said electrical power conductors." (emphasis added).

Applicant agrees that the limitations identified by the Examiner are absent from Reference 1, and respectfully submits that they are also entirely absent from Inoue. In fact, the Examiner does not seem to cite Inoue as teaching these specific limitations. Instead, the Examiner cites Inoue as teaching the "well known concept" of "connecting two power feed equipment so electrical current can flow between said first and second power feed equipment through said power conductor (sic) of first and second cable." *Page 3 of Official Action dated May 17, 2005 (emphasis added).* The Examiner points out that "[b]ranching unit (sic) connects power feed equipment so that current can flow between first and second power feed equipment through first and second cables." *Id.* Regarding the "no separate power source" limitation of the claims, the Examiner only states that "power feed equipment located at the landmasses supply power to the branching unit or power connector so that no separate current source is coupled to the power connector or branching unit." *Page 4 of Official Action dated May 17, 2005 (emphasis added).*

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Inoue teaches a configuration for a submarine branching unit. The branching unit is located in the sea for connecting optical cables emanating from cable landing stations. Column 1, lines 10 - 20, column 13, lines 18 - 33. The Examiner refers to FIGS. 24A, 24B, and 24C of Inoue. FIGS. 24A, 24B and 24C are described in Inoue as configurations that may be established by the circuit shown in FIG. 22, and are reproduced below:

Fig. 24A

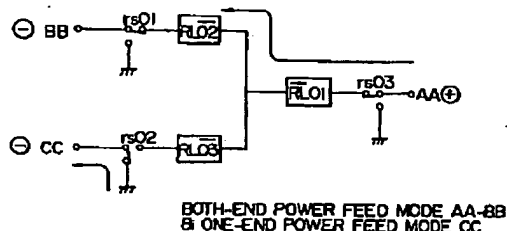


Fig. 24B

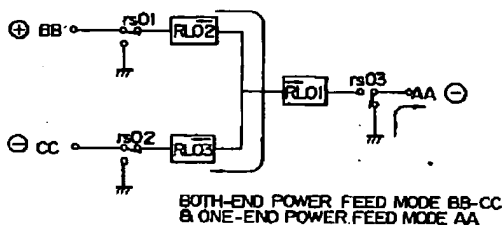
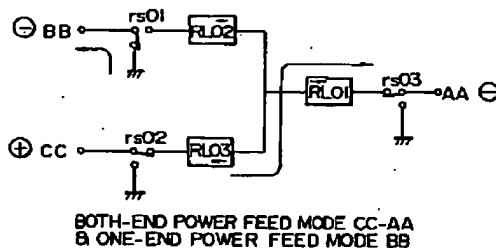


Fig. 24C



Clearly, FIGS. 24A, 24B and 24C each show power feed equipment located on each of the cable landing stations AA, BB and CC. This is confirmed in the specification at column 18, lines 36-64:

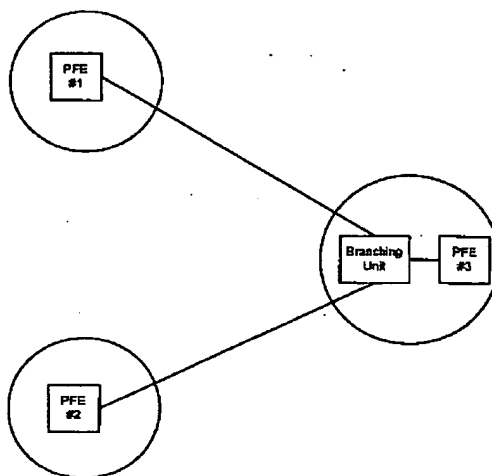
Since the unit in this embodiment has a symmetrical Y-shaped connected circuit configuration, it is possible to establish power feed lines in any one of three power

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feed line formations shown in FIGS. 24A, 24B and 24C. Namely, in a power feed line formation shown in FIG. 24A, power feed between the cable landing station AA (positive current) and the cable landing station BB (negative current) is specified to a both-end power feed mode, and power feed by the cable landing station CC (negative current) is specified to a one-end power feed mode. Further, in a power feed line formation shown in FIG. 24B, power feed between the cable landing station BB (positive current) and the cable landing station CC (negative current) is specified to a both-end power feed mode, and power feed by the cable landing station AA (negative current) is specified to a one-end power feed mode. Furthermore, in a power feed line formation shown in FIG. 24C, power feed between the cable landing station CC (positive current) and the cable landing station AA (negative current) is specified to a both end power feed mode, and power feed by the cable landing station BB (negative current) is specified to a one-end power feed mode.

Accordingly, if a fault occurs in any one of the three optical marine cables, it is possible to disconnect the faulty optical marine cable from the power feed lines connected in the Y-shaped connection and to feed power through the other two optical marine cables in the both-end power feed mode. (emphasis added).

Inoue thus teaches that three separate power feed equipment, i.e. at stations AA, BB, and CC, should be coupled to the disclosed undersea branching unit. Even if one would have been motivated by Inoue to place the submarine branching unit disclosed therein on a landmass, as suggested by the Examiner, one would have to provide connections to three separate power feed equipment, such as:



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Clearly this requires connection of a separate current source, i.e. PFE #3, to the branching unit on the landmass associated with the branching unit. There is simply nothing in Inoue that teaches or suggests providing an "electrical connector" on a landmass to connect power conductors of power feed equipment, without a "separate current source" coupled thereto and without a switch, as claimed. On the contrary, Inoue is specifically directed at managing undersea interconnections and teaches to couple power feed equipment from each of the three cable landing stations to which it is connected.

In fact, there is no combination of Reference 1 with Inoue that one could make to achieve the claimed invention. Inoue specifically teaches a switched branching unit with power feed equipment coupled to it from each of the three landmasses to which it is connected. The pending claims require that no "separate current source" be coupled to the "electrical connector" on the landmass associated with the electrical connector. Even if one could conclude that Inoue teaches a branching unit for use on a landmass, to place the undersea branching unit of Inoue on land in a manner required by the pending claims, one would have had to redesign Inoue by reconfiguring the internal circuitry to allow removal of the power feed equipment from one of the landing stations AA, BB or CC and removing the switched connections. Inoue is completely devoid of any teaching or suggestion of such modifications.

The cited references simply do not teach or suggest all of the limitations of the pending claims. Inoue clearly does not teach or suggest a device that for coupling power conductors power feed equipment on a landmass with "no separate current source" coupled thereto on the landmass where it is located and with no switch between the power conductors, as set forth in independent claims 1 and 11. Inoue specifically teaches three separate power feed equipment coupled to the disclosed submarine branching unit. Only through hindsight in reading the Applicant's disclosure would one consider combining the references to achieve the claimed invention. As the Examiner knows, however, "obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor." *Para-Ordnance Manufacturing, Inc. v. SGS Importers International, Inc.*, 73 F.3d 1085, 37 USPQ2d 1237 (Fed.

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Cir. 1995).

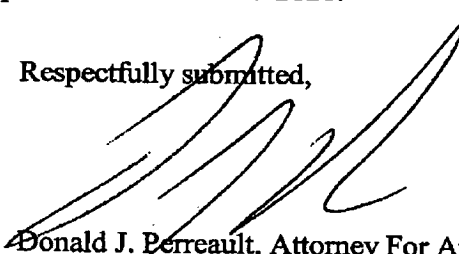
Reference 1 fails to teach or suggest essential limitations of the claimed invention. Inoue does not provide the missing teachings, either explicitly or implicitly. In fact, Inoue's teaching of a submarine configuration for managing connections between three different power feed equipment teaches away from the claimed invention which requires that "no separate current source is coupled to said electrical power connector" on a landmass associated with the connector.

Accordingly, it is respectfully submitted that the rejection of claims 1 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Reference 1 in view of Inoue should be withdrawn upon reconsideration. Claims 3-10, 12-15 and 20-23 depend, either directly or ultimately, from independent claim 1 or independent claim 11, and are allowable over Reference 1 combined with Inoue for the reasons adduced above, as well as for their own limitations. Accordingly, it is requested that the rejection of claims 3-10, 12-15 and 20-23 under 35 U.S.C. §103(a) in view of Reference 1 and Inoue also be withdrawn upon reconsideration.

In light of the foregoing remarks, it is believed that all of the presently pending claims are in a condition for allowance. Allowance of the application is respectfully requested. In the event the Examiner deems personal contact desirable in disposition of this application, the Examiner is respectfully requested to call the undersigned attorney at (603) 668-6560.

No fees are believed to be due. In the event there are any fee deficiencies, please charge them (or credit any overpayment) to our Deposit Account No. 50-2121.

Respectfully submitted,



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